

5d). However, the air-dried Beauseart soil failed to accumulate HNO_2 and kill microsclerotia (Fig. 13a to 13j). In comparison, the Mackenzie soil has rapid nitrification, associated reduction in soil pH, accumulation of HNO_2 , and death of microsclerotia. The population of autotrophic nitrifying bacteria at the start of the experiment was higher in the Mackenzie soil ($1.1 \times 10^5 \text{ g}^{-1}$ soil) compared to the Beauseart soil ($5.8 \times 10^3 \text{ g}^{-1}$ soil) likely accounting for differences in nitrification rate between soils.

IN THE DRAWINGS:

Permission is respectfully requested to amend the drawings as shown on the attached photocopy thereof. In the drawings, Applicant has removed extraneous written matter and has identified the individual drawings as appropriate.

IN THE CLAIMS:

Would the Office kindly amend the claims as follows. A copy of the previous version showing the changes is attached hereto.

Claim 4 (Once amended)

The method of claim 2 wherein said nitrogen containing material is selected from a group consisting of animal manures, sewage sludge, animal by-products, chitinous materials, oil- seed materials, urea, NH_4x and xNO_2 compounds wherein x is selected from the group consisting of salts of ammonium and salts of nitrite.

Claim 5 (Once amended)

The method of claim 2 wherein said nitrogen containing material is added at a rate of between 200 kg N/hectare and 1000 kg N/hectare.

Claim 9 (Once amended)

B6 The method of claim 5 wherein said nitrogen containing material is applied at a rate of between 400 kg N/hectare and 800 kg N/hectare.

Claim 10 (Once amended)

The method of claim 7 wherein said nitrogen containing material is applied at a rate of between 600 kg N/hectare and 1000 kg N/hectare.

Claim 20 (Once amended)

B7 The method of Claim 1 further including the step of measuring the pH of the soil, measuring the buffering capacity of said soil, and adding said nitrogen containing material and said pH reducing agent to said soil when said buffering capacity is below 2 uL H₂SO₄ /g soil.
